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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,672	07/19/2000	Takafumi Hoshizawa	0557-4983-2	2151

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ALEXANDRIA, VA 22314

EXAMINER

THEIN, MARIA TERESA T

ART UNIT	PAPER NUMBER
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3627

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/619,672

Applicant(s)

HOSHIZAWA ET AL. 

Examiner

Marissa Thein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,6,8,10-15,17,20,21 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,8,10-15,17,20,21 and 23-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

Applicants' "Request for Consideration" filed on September 22, 2004 has been considered.

Claims 1, 6, 8, 10-15, 17, 20, 21, and 23-26 remain pending in this application.

### ***Response to Arguments***

Applicant's arguments filed on September 22, 2004 have been fully considered but they are not persuasive.

Applicants remark that "neither Yamashita nor Kikuchi, either alone or combination to teach or suggest a counter for monitoring a continuous time period that an alert signal is detected, wherein the time period is "adjustable set the user side".

The Examiner does not concur. Yamashita was cited for substantially disclosing the claimed invention, however, Yamashita does not disclose the counting means for counting duration of time that the detecting means detect the signal. In Figure 3, Yamashita discloses a photocopier machine (an image forming apparatus) which includes a copier supervision device (a consumable item apparatus) (considered the user side). The copier supervision device is configured to store and maintain use data, stock data, and supervision data (col. 9, lines 14-16). The data held in the RAM 45 (Figure 5) of the copying machine supervision device can be re-initialized and the values previously set can also be replaced or updated (col. 10, lines 65-67).

Such data in the RAM of the copying machine supervision device which is being re-initialized and the values previously set which is being replaced or updated are considered "adjustably set at the user side".

The Examiner then turns to Kikuchi for teaching the count means for counting duration of time that the detecting means detect the signal. Kikuchi teaches a toner supply control system of the electrophotographic apparatus (considered the user side) (col. 2, lines 65-66). Kikuchi further teaches that when the toner empty sensor signal of the electrophotographic apparatus detects a toner shortage, a high level is outputted. The control section of the electrophotographic apparatus measures a period of time, in which the toner empty sensor signal continues to be on a high level in the case where the printing signal of the electrophotographic apparatus is on a high level. After a period of time T1 has passed, toner shortage previous signal becomes a high level. The control system of the electrophotographic apparatus determines the period of time passed (T1). The toner shortage previous signal may be reported by a buzzer (alert signal). (Col. 5, lines 31-39) The operator then receives the toner shortage previous signal and recognizes that the toner is in short supply and starts supplying the toner (considered the consumable item supplying section) (col. 5, lines 41-44).

Such the measurement of a period of time of the toner empty sensor signal in the control section of the electrophotographic apparatus is considered the counter for monitoring a continuous time period. Such measurement of time and determination of the period of time that has passed which is processed in the control system of the electrophotographic apparatus are considered the adjustability set at the user side.

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Applicants' remark that "there is no motivation to modify Yamashita".

In response to applicants' remark that there is no motivation to modify Yamashita, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation was found in Kikuchi (col. 3, lines 27-31).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 6, 8, 10-15, 17, 20-21, and 23-26 are rejected under 35 U.S.C.**

**103(a) as being unpatentable over U.S. Patent No. 5,594,529 to Yamashita et al. in view of U.S. patent No. 5,606,403 to Kikuchi et al.**

Regarding claims 1, 17, and 21, Yamashita discloses a system and method comprising:

- consumable items means for storing a variety of consumable items for an image forming apparatus at a user side (see at least col. 3, lines 23-25;

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- consumable item supplying means for supplying a variety of consumable items for the image forming apparatus to the user side upon request, the consumable item supplying means being connected to the consumable item means via communication means (see at least col. 3, lines 26-31; );
  - a first means for detecting that a corresponding consumable item in the image forming apparatus needs replenishment (see at least col. 5, lines 19-20; col. 7, lines 55-60; col. 8, lines 62-65; col. 10, lines 5-8 );
  - a second means for detecting one of a type and a size of the corresponding consumable item needing replenishment in the image forming apparatus (see at least col. 8, lines 48-59; col. 9, lines 50-53; col. 10, lines 20-30);
  - signal generating means for generating a signal indicating the first means has detected the corresponding consumable items needs replenishment (see at least col. 5, lines 19-20; col. 7, lines 55-60; col. 8, lines 62-65; col. 10, lines 5-8; col. 20, lines 21-24);
  - signal detecting means for detecting the signal generated by the signal generating means (see at least col. 7, lines 23-27; col. 7, lines 48-60; col. 8, lines 62-65; col. 10, lines 5-8);
  - consumable items order data transmitting means for transmitting order data indication a request for the corresponding consumable item that needs to be replenished to the consumable item supplying means via the communication network (see at least col. 5, lines 30-34; col. 19, lines 1-4; col. 20, lines 50-53);
- and

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- delivery data transmitting means included in the consumable item supplying means for transmitting delivery data indicating a consumable item distributing day and consumable item scheduled delivery day from the consumable item supplying means to the user side such that a delivery status of the corresponding consumable items to be replenished can be confirmed (see at least col. 5, lines 30-52; col. 12, lines 48-55; col. 14, lines 22-31).

However, Yamashita does not disclose counting means for counting duration of time that the detecting means detect the signal. Yamashita discloses a toner-empty signal has been received from the copying machine. A toner replenishment count which is stored in the RAM is incremented upward, and corresponding toner cartridge stock data is updated. (See col. 10, lines 33-37) A judgment is made to determine whether or not a reset signal has been received from the host computer. If a reset signal has been received from the host computer the data indicating the toner replenishment count is re-initialized and the values previously set are replaced and updated (adjustably set at the user side). (See col. 10, lines 60-67). Kikuchi, on the other hand, teaches count means for counting duration of time that the detecting means detect the signal (see at least abstract; col. 3, lines 13-26; col. 4, lines 25-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system and method of Yamashita, to include the counting means to count the duration of time period that detects the signal, as taught by Kikuchi, in order to avoid the stoppage and prohibition of printing operation caused by

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the shortage of a consumable item so that printing efficiency can be enhanced (Kikuchi col. 3, lines 27-31).

Regarding claims 6, 8, 11-15, 20, and 23, Yamashita discloses a data receiving device configured to receive the order data transmitted from the order data transmitting device (see at least col. 5, lines 30-34; col. 19, lines 1-4; col. 20, lines 50-53); the delivery data includes information corresponding to a day when distribution of the corresponding consumable item is started by the consumable item supplying section and a day when the corresponding consumable item is scheduled to be delivered to the user side (see at least col. 5, lines 30-52; col. 12, lines 48-55; col. 14, lines 22-31); the consumable item system is employable regardless of a model and manufacturer of the image forming apparatus (see at least col. 12, lines 56-65); the order data is reset when the signal disappears (see at least col. 10, lines 60-67; col. 12, lines 29-38); the consumable item data transmitting device is disposed at the user side (see at least col. 2, line 60 – col. 3, line 5; col. 7, line 34- col. 8, line 14; Figure 1; col. 4, lines 1-8); the data receiving device is disposed at the consumable item supply section (see at least col. 2, line 60 – col. 3, line 5; col. 7, line 34- col. 8, line 14; Figure 1; col. 4, lines 1-8); and a display at the user side on which the delivery data is displayed (see at least col. 13, lines 56-59; col. 19, lines 1-18; col. 23, lines 4-21).

Regarding claim 10, Yamashita discloses electronic communication means such as a modem (col. 2, lines 36-39); telecommunication link, a network link or other similar electronic communication line or link (col. 6, line 67 – col. 7, line 2), but fails to identify



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such communication as "wireless". The Examiner notes that "modems" and telecommunication are known to be wireless.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the systems and methods disclosed by Yamashita to have included a wireless communication. The skilled artisan would have been motivated to do so in order to have provided a mobile communication that simplifies installation of the system and reduces the installation cost.

Regarding claims 24-26, Yamashita discloses a system and method comprising:

- consumable items means for storing a variety of consumable items for an image forming apparatus at a user side (see at least col. 3, lines 23-25;
- consumable item supplying means for supplying a variety of consumable items for the image forming apparatus to the user side upon request, the consumable item supplying means being connected to the consumable item means via communication means (see at least col. 3, lines 26-31);
- a first means for detecting that a corresponding consumable item in the image forming apparatus needs replenishment (see at least col. 5, lines 19-20; col. 7, lines 55-60; col. 8, lines 62-65; col. 10, lines 5-8 );
- signal generating means for generating a signal indicating the first means has detected the corresponding consumable items needs replenishment (see at least col. 5, lines 19-20; col. 7, lines 55-60; col. 8, lines 62-65; col. 10, lines 5-8; col. 20, lines 21-24);

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- signal detecting means for detecting the signal generated by the signal generating means (see at least col. 7, lines 23-27; col. 7, lines 48-60; col. 8, lines 62-65; col. 10, lines 5-8);
- consumable items order data transmitting means for transmitting order data indication a request for the corresponding consumable item that needs to be replenished to the consumable item supplying means via the communication network (see at least col. 5, lines 30-34; col. 19, lines 1-4; col. 20, lines 50-53);
- delivery data transmitting means included in the consumable item supplying means for transmitting delivery data indicating a consumable item distributing day and consumable item scheduled delivery day from the consumable item supplying means to the user side such that a delivery status of the corresponding consumable items to be replenished can be confirmed (see at least col. 5, lines 30-52; col. 12, lines 48-55; col. 14, lines 22-31); and
- display means for displaying the delivery data at the user side (see at least col. 13, lines 56-59; col. 19, lines 1-18; col. 23, lines 4-21).

However, Yamashita does not disclose counting means for counting duration of time that the detecting means detect the signal. Yamashita discloses a toner-empty signal has been received from the copying machine. A toner replenishment count which is stored in the RAM is incremented upward, and corresponding toner cartridge stock data is updated. (See col. 10, lines 33-37) A judgment is made to determine whether or not a reset signal has been received from the host computer. If a reset signal has been received from the host computer the data indicating the toner replenishment count

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is re-initialized and the values previously set are replaced and updated (adjustably set at the user side). (See col. 10, lines 60-67). Kikuchi, on the other hand, teaches count means for counting duration of time that the detecting means detect the signal (see at least abstract; col. 3, lines 13-26; col. 4, lines 25-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system and method of Yamashita, to include the counting means to count the duration of time period that detects the signal, as taught by Kikuchi, in order to avoid the stoppage and prohibition of printing operation caused by the shortage of a consumable item so that printing efficiency can be enhanced (Kikuchi col. 3, lines 27-31).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa Thein whose telephone number is 703-305-5246. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on 703-308-5183. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mtot  
December 26, 2004

*Michael Cuff* 12/27/04

**MICHAEL CUFF  
PRIMARY EXAMINER**